

ABSTRACT OF THE DISCLOSURE

2 A portable, hand-held data processing assembly of modular structure
includes a base unit with a keyboard and a display screen. An indicia reader
4 module is housed in a housing shell which is attachable to the base unit. The
indicia reader module can contain a reflected light indicia reader for non-contact
6 essentially instantaneous reading of bar codes of the like disposed in a spaced,
non-contacting relationship to the assembly. The indicia reader module can also
8 include a processor. The base can include a light source. Additionally, the base
unit can include a battery for powering the hand-held data processing assembly.

10 A data collection and communications module can include a stacked
arrangement of a communications interface main circuit board, a radio and a
12 laser scanner assembly which are housed in a housing shell attachable to the
base unit. In this arrangement, the radio is mounted in spaced relationship to
14 one side of the main circuit board, while the laser scanner assembly is mounted
to the other side of the main circuit board. A support frame and a plurality of
16 ground planes in the sandwiched main circuit board and a routing circuit board
form an RF cage for shielding RF interference which may be generated by the
18 radio. Also disclosed is a method for reducing the operational power
consumption requirements of laser bar code scanners by analyzing reflected
20 laser light in order to determine the presence of optically readable information
sets.